

controlled by the brightness reference during in the blank area and this particular level is used as the black level in the image display area (see Figs. 2a and 3a-d for example)]. This is entirely the problem that the arrangement of amended Claim 1 avoids: dependency of the black level in both the digital image data area and the blank area such that the black level is altered in the same manner for each region.

For at least this reason, neither Sato nor Tsujihara anticipate or suggest the arrangement of amended Claim 1. Thus, amended Claim 1 and Claims 2-4 are patentable over the prior art cited by the Examiner.

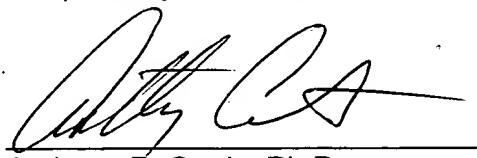
For similar reasons, neither Sato nor Tsujihara anticipate or suggest the arrangement of amended Claims 5 or 10. Thus, amended Claims 5 and 10 as well as Claims 6-9 and 11-13 are patentable over the prior art cited by the Examiner.

Furthermore, new Claims 14-16 are independently patentable over the prior art cited by the Examiner as neither prior art specifically discloses establishing a separate border between the digital image data and blank areas or, more specifically that such a border is only one pixel wide.

## Conclusion

In view of the amendments and arguments above, Applicants respectfully submit that all of the pending claims are in condition for allowance and seek an early allowance thereof. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned.

Respectfully submitted,



Anthony P. Curtis, Ph.D.  
Registration No. 46,193  
Agent for Applicant

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, ILLINOIS 60610  
(312) 321-4200



## APPENDIX A

# IMAGE DISPLAY APPARATUS FOR FIXING LUMINANCE OF BLANK AREA AND VARYING ONLY LUMINANCE OF IMAGE

Serial No. 09/609,502

Katsuyama et al.

### In the Claims

Please amend Claims 1-3, 5 and 10 as follows:

1. (Amended) An image display apparatus comprising:
  - an A/D converter to convert an input analog image signal into digital image data;
  - a black level setting mechanism to set a black level of the digital image data by adjusting a lower-limit reference voltage of the A/D converter;
  - a blank data generator to generate blank data to display a blank area around an image display area on a screen, the black level of the blank area being independent of the black level of the digital image data area;
  - an image data combiner to combine blank data generated by the blank data generation mechanism and digital image data output from said A/D converter; and
  - a display to display an output of the image data combiner on said screen.
2. (Amended) An image display apparatus according to claim 1, said black level setting mechanism comprising a variable resistor.
3. (Amended) An image display apparatus according to claim 1, said black level setting mechanism comprising an illuminance sensor to detect the illuminance around a video camera that outputs said analog image signal.
5. (Amended) A method of displaying an image comprising:
  - adjusting a black level of digital image data such that a black level of an image display area is different from a black level external to the image display area; and
  - displaying an image from the digital image data in the image display area.

6. (Amended) The method of displaying an image according to claim 5, further comprising:

converting an input analog image signal into digital image data;  
adjusting a lower-limit reference voltage of the digital image data  
~~converting~~ thereby adjusting the black level of the digital image data;  
generating blank data to display a blank area around an image display area on a screen in which the black level of the blank area is independent of the black level of the image display area;  
combining the blank data generated and digital image data output; and  
displaying the combination of the blank data generated and digital image data output on the screen.

10. (Amended) A method of displaying an image comprising:

converting an input analog image signal into digital image data;  
adjusting a lower-limit reference voltage of the digital image data  
~~converting~~ thereby setting a black level of the digital image data;  
generating blank data to display a blank area around an image display area on a screen in which the black level of the blank area is independent of the black level of the image display area;  
combining the blank data generated and digital image data output; and  
displaying the combination of the blank data generated and digital image data output on said screen.